# News release

1 November 2007

## Argo achieves its 3,000-float target

Despite the oceans covering 70% of the Earth's surface and being a major influence on our climate system, comparatively little is known about them.

Argo, a worldwide programme to deploy thousands of specialised floats throughout the world's oceans, is helping us to improve our understanding by providing regular measurements from previously-data-sparse areas.

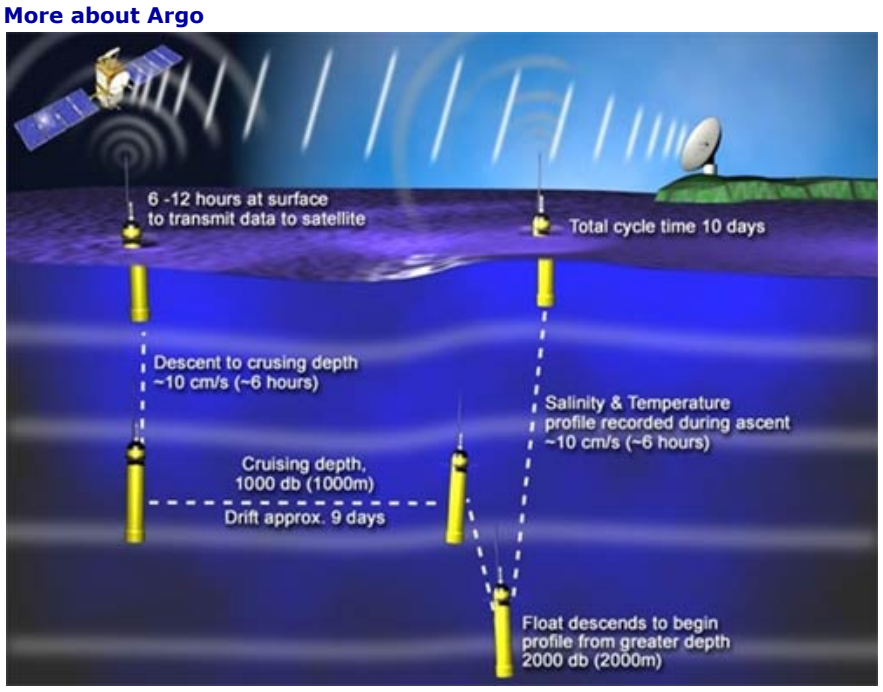
The programme to establish a global network of floats was initiated in 2000.  It has now achieved its goal of 3,000 operating floats and these are providing around 100,000 observations each year, throughout all the ice-free deep-ocean areas of the world. Around 800 floats will need to be deployed each year to maintain the 3,000 float array.

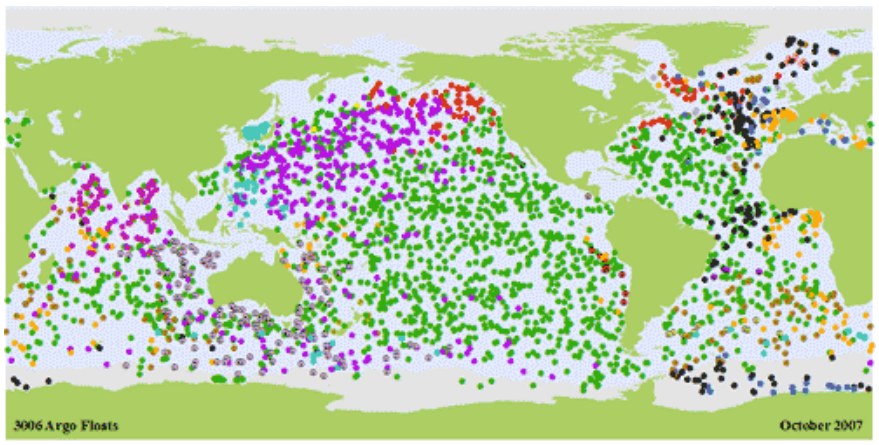
Internationally, over 30 countries have worked together to establish the Argo array. Here in the UK, the programme managed by the Met Office, in partnership with the National Oceanography Centre in Southampton, the British Oceanographic Data Centre and the UK Hydrographic Office, has deployed around 230 Argo floats to date. It is jointly funded by Defra, MoD and NERC (Natural Environment Research Council).

Argo data are vital for monitoring ocean temperatures, a key factor in climate change, where increasing ocean temperatures contribute to sea-level rise. Data are also fed into the coupled ocean-atmosphere computer models that the Met Office use to make its seasonal forecasts. Being able to accurately define the initial ocean state and circulation is critical towards producing more accurate seasonal forecasts.

Jon Turton, Marine Observations Manager at the Met Office, said: "Improving our understanding of the role of the oceans in the Earth's climate system offers the key to better long-range weather forecasts and improved climate prediction. It is vital that Argo is maintained over the coming decades, for the benefit of us all."

## More about Argo




The floats are able to ascend (and descend) by changing their buoyancy. They spend most of their time drifting at depth.

- Argo floats measure temperature, salinity and pressure from 2,000 metres' depth to the surface
- The floats drift at a standard depth of 1,000 metres, providing information on the ocean circulation
- Each float can make around 150 profiles (from 2,000 metres) and operate for as long as four years
- Each float weighs around 25 kg and with its aerial is about two metres high
- 3,000 floats will give measurements with an average spacing of 3 degrees (approximately 300 km) and provide around 100,000 profiles of temperature and salinity each year, covering all the ice-free ocean areas around the world
- The cost to buy and deploy a float and to collect and process its data over its lifetime is around US$30k (£15k)
- To maintain the 3,000-float array around 800 new ones must be launched each year, at an annual cost of around US$24m (£12m)
- The first UK Argo floats were deployed in 2001 and around 230 UK floats have been deployed so far, with one float surviving for over five years and reporting 185 profiles
- To help in maintaining the Argo array a long-term UK commitment will be required

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